DOCUMENT RESUME

ED 307 206 SO 019 997

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TITLE Philosophy of Computer Use in the Social Studies.
PUB DATE 30 Mar 89
NOTE 13p.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)
-- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; *Computer Software; Curriculum Enrichment; Educational Objectives; *Educational Philosophy; *Educational Theories; Elementary Secondary Education; Existentialism; Realism; *Social Studies; *Teacher Characteristics; Teaching Methods
IDENTIFIERS Experimentalism; Idealism

ABSTRACT

Four philosophies of computer use in the social studies field are discussed, each representing a unique school of thought in teaching and learning. They are idealism, realism, experimentation, and existentialism. Idealists believe in an idea-centered social studies curriculum. Tutorial programs, carefully selected to achieve relevant goals, may well present subject matter to students in a logical sequence. Realism stresses that one can know the real world as it truly is. Teachers adhering to realism as an educational philosophy select learning opportunities for students to attain precise objectives. After completing the software program, teachers measure if students have/have not been successful in goal attainment. Experimentalism stresses a problem-solving procedure, for which a flexible model is presented. Software must assist students to secure knowledge directly related to the problem, which should be life-like and real. Existentialist social studies teachers advocate students learning to choose and make decisions. A learning center approach, in which students select desired tasks and software programs, while omitting those not having a perceived purpose, might well emphasize existentialist tenets. The student is responsible for his/her choices. A second plan involves student-teacher planning of objectives, learning opportunities, and appraisal procedures. Students might choose which software packages to use in a given unit. Under any philosophy, software should be instrumental to problem solving in the social studies. Criteria for software selection are presented, as is a 7-item bibliography. (GEA)

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Philosophy of Computer Use in the Social Studies

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Edgar Marlow

PHILOSOPHY OF COMPUTER USE IN THE SOCIAL STUDIES

Four philosophies of computer use in the social studies will be discussed. Each philosophy represents a unique school of thought in teaching and learning. Teachers, supervisors, and principals need to study and analyze each philosophy. A synthesis occurs when one or more philosophies is implemented in the teaching of social studies.

Idealism in Teaching the Social Studies

Idealists believe in an idea centered social studies curriculum. Ideas represent what can be known of the natural and social environment. One cannot know reality as it truly exists. However, the mind aids in developing facts, concepts, and generalizations pertaining to what is being learned.

With mental development of the student being an ultimate goal in teaching social studies, the idealist advocates a subject centered curriculum. The acquisition of subject matter becomes paramount as compared to an activity centered curriculum. The academically orientated social studies teacher needs to stimulate students to attain vital subject matter.

Tutorial programs, carefully selected to achieve relevant goals, may well present subject matter to students in a logical sequence. The writer of the program has determined the order of subject matter to be presented to students. Properly conducted field studies involving software packages aid in achieving proper sequence in learning for each student.

Dennis and Kansky[1] wrote:

> One view of education pictures the student on one end of log and the teacher on the other. Teaching takes place as dialogue between teacher and student in which the questions and statements of each are a response to the questions and statements of the other. When not used to the exclusion of other instructional schemas, this is a powerful instructional technique. We call it tutoring.
>
> Computers have been shown to be an effective and economical resource for tutoring. The quality of the tutoring, of course, is a function of the computer programs available. The problem for the designer of such programs is to make the computer behave as if it were a very knowledgeable and creative teacher who is engaged in a dialogue with a single student for the purpose of helping that student to develop important new thoughts. The designer must make the dialogue rich enough to account for variations in student achievement, interest, and learning style. In view of the complex nature of such programs, it should come as no surprise that the supply of them is meager.

Tutorial programs present new subject matter to students. Frequent interaction between the student and the computer is necessary. Thus, students should be able to respond frequently to previously presented content on the screen. Feedback is then given to students based on their responses made.

The major goal of tutorial programs is to present subject matter for learner acquisition. The rate of presentation and the subject matter involved should harmonize well with the present attainment levels of students. Sequential achievement is then possible. With ample subject matter achieved, mental and intellectual achievement of the student moves away from the finite (limited) to the more infinite being.

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[1] J. Richard Dennis and Robert J. Kansky. Instructional Computing. Glenview, Illinois: Scott, Foresman and Company, 1984, page 14.

Realism in Teaching the Social Studies

Realism stresses that one can know in whole or in part the real world as it truly is. A duplicate/replica of the natural and social environment is possible rather than ideas of what exists. Since reality can be known as it truly is, precise objectives need to be written prior to instruction. The objectives may be state mandated, local district instructional management systems (IMS), or written by the teacher. These predetermined objectives are highly specific and measure if a student has/has not been successful in goal attainment.

Pertaining to realism, Wahlquist[2] wrote:

> Realists generally agree in stressing the need of making philosophy scientific. A major part of the realistic program of reform consists in emphasizing the close relation of philosophy to the sciences. There are those who think that the proper procedure for philosophy is to utilize the method of abstraction perfected in mathematics and made the basis of all scientific investigation. Generally, realists are agreed that the method of scientific analysis is the fundamental approach. The ultimate determination of the truth of an idea is regarded as something beyond mere personal satisfaction, something external to the personality, and not dependent upon it. Consequently, truth must be discovered by objective means, as free as possible from the subjectivity of the experimenter. The realist is interested in the temperature of the room as registered by a gadget, not the impressions of the persons in the room.

The teacher adhering to realism as a philosophy of education selects learning opportunities for students to attain precise objectives. Evaluation procedures are aligned with the measurably

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[2] John T. Wahlquist, The Philosophy of American Education. New York: The Ronald Press, 1942, page 56.

stated ends. Thus, validity should be increasingly in evidence in the evaluation process. If the measurement procedures provide consistent results, high reliability may also be in the offing.

Realism emphasizes objectivity, rather than subjectivity in determining student achievement. Student progress may then be reported numerically using exact, precise numbers. The internal feelings, values, and beliefs of a learner are salient only if they can be measured objectively.

In utilizing software and computers emphasizing realism as a philosophy of education, the teacher needs to write measurably stated objectives prior to instruction. The software package stresses content directly related to the precise ends. After completing the software program, the teacher measures if students have/have not been successful in goal attainment. Either a student has/has not attained the sequential measurably stated objectives. The program objectives may also be listed in the manual section of the software package being utilized. A different teaching strategy needs to be utilized if the objectives have not been achieved by students.

Experimentalism in Teaching the Social Studies

Experimentalism is a third philosophy of instruction which may be utilized with computer services. Experimentalism[3] stresses a problem

[3]John Dewey, Democracy and Education. New York: The Macmillan Company, 1961.

solving procedure. A flexible model for problem solving emphasizes

1. students with teacher guidance identifying clearly stated problems.
2. data or information is gathered in answer to the problem. Software content becomes applicable here as a data source.
3. a hypothesis or answer to the problem is developed.
4. the hypothesis is tentative and subject to testing. Testing a hypothesis may well involve utilizing additional software packages.
5. a revision of the hypoth[illegible], if needed.

William Heard Kilpatrick (18[illegible]-1965) [4] emphasized a slightly different version of problem solving in what he called the project method. Dr. Kilpatrick advocated the use of student purposing, planning, executing, and judging in the project method. The first flexible step of problem solving (purposing) stressed students selected an activity to purpose which had purpose or reasons for pursuing. The learner must then perceive reasons for engaging in a learning opportunity. Teacher reason or purpose is not adequate. The student needs to sense reasons with teacher assistance, not domination, to pursue a purposeful activity. After the purpose has been established, plans need to be made to achieve the related goals. The student must be heavily involved in planning how to achieve the purpose. Planning to attain the

[4] William Heard Kilpatrick, Remaking the Curriculum. New York: Newsom and Company, 1936.

purpose is an important facet of learning.

Executing, according to Dr. Kilpatrick, emphasized that the involved student carry out the plan, after which the completed project is to be judged or evaluated. A series of flexible sequences are involved to assist students in solving problems using the project method.

Dr. George S. Counts (1889-1972)[5] emphasized reconstructionism as a philosophy of education. Dr. Counts believed that schools should take the lead in improving society. Problem solving needs thorough emphasis in the curriculum. Rapid changes must be made in society to develop a new social order. Traditions, customs, and culture are not adequate. Schools must not mirror society. Rather, students in school presently need to be educated to accept change and work for change in society. School and society should not be separated from each other. Problems in society may well provide a focal point for curriculum development in school. Students need to be well versed in these problems and through a use of a variety of reference sources work toward related solutions. Later on as adults, present day learners should truly be effective to select problems and work for quality rapid changes in the social arena.

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[5] Christopher Lucas, Our Western Educational Heritage. New York: Macmillan Publishing Company, 1972.

With experimentalism as a philsophy of teaching social studies, software and microcomputer use must follow definite criteria. Content in the software must assist students to secure knowledge directly related to the problem. The knowledge base of learners must be broad to achieve a testable hypothesis. The hypothesis is then based upon relevant facts, concepts, and generalizations. The hypothesis is then tested by students in securing additional content. The utilization of software and its subject matter content is not an end in and of itself. Rather, subject matter acquired is instrumental to developing and testing a hypothesis. The hypothesis and its testing are directly related to the identified problem.

Quality software is needed in the social studies so that students may identify and solve problems. The problems should be life-like and real. What are vital problems in society may well become topics for problem solving in the social studies. The societal arena is then not separated from the social studies curriculum.

Existentialism and the Social Studies

Existentialist teachers of the social studies advocate students learning to choose and make decisions. A learning centers approach might well emphasize tenets of existentialism. An adequate number of tasks at the diverse centers need to be in evidence so that students may select sequential tasks and omit those not having perceived purpose. An adequate number of tasks need to be available for students to select and utilize software programs. The student is responsible for his/her choices made in the social studies within a flexible framework.

A second plan of existentialism would involve student-teacher planning of objectives, learning opportunities, and appraisal procedures. The more open ended student-teacher planning is, the more emphasis is being placed upon existentialism. Existentialism stresses a highly open, flexible environment from which choices and decisions can be made.

Choices could be made by students in terms of which software packages to pursue in a specific social studies unit. Within a social studies unit, the software package may stress drill and practice, tutorial, games, as well as simulation.

Sequentially, learners may grow more independent and increasingly move in the direction of an open ended curriculum. Existentialism[6] emphasizes that individuals experience much freedom to choose and to make choices. Each person makes his/her own future through personal decisions made.

In Closing

Four philosophies of teaching social studies were emphasized in utilizing computers and software:

1. idealism with its subject centered curriculum.

2. realism with the utilization of predetermined objectives for student attainment.

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[6] Matthew Lipman, Ann Margaret Sharp, and Frederick S. Oscanyan, Philosophy in the Classroom. Second edition. Philadelphia: Temple University Press, 1980.

3. experimentalism with its problem solving procedures.

4. existentialism with its emphasis placed upon decision-making by students.

The writer recommends major emphasis be placed upon software content being instrumental to the solving of problems in the social studies. Life itself consists of identifying and solving problems. Subject matter (idealism), precise objectives (realism), and student decision-making (existentialism) should emphasize increasingly so, a problem solving procedure in teaching the social studies. Thus

1. subject matter may be acquired to solve problems.

2. measurably stated objectives need to incorporate problem solving goals for learners to attain.

3. decision-making strategies should stress the solving of problems in the social studies.

Wright and Forcier[7] listed the following criteria for software selection for drill and practice, as well as simulations and games:

Criteria for Drill and Practice Programs	Criteria for Simulations and Games
1. Format is interactive.	1. Clear directions.
2. User can establish the pace.	2. Simple keyboard/paddle use.
3. Provision made for a progression in levels of difficulty.	3. Varying levels of difficulty.
4. Items at same level of difficulty can be selected at random.	4. Realistic situation for role-playing.

[7]Wright, Edward B., and Richard C. Forcier. The Computer: A Tool for the Teacher. Belmont, California: Wadsworth Publishing Company, 1985, page 158.

5. Employs motivational techniques.

6. Rewards presented for correct responses.

5. High level of interest maintained throughout.

6. Results predicated on user input.

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